

## Low Temperature Method for Forming a Thin, Uniform Oxide

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### ABSTRACT

This invention pertains generally to forming thin oxides at  
5 low temperatures, and more particularly to forming uniformly  
thick, thin oxides. We disclose a low temperature method for  
forming a thin, uniform oxide 16 on a silicon surface 12. This  
method includes providing a partially completed integrated  
circuit on a semiconductor substrate 10 with a clean, hydrogen  
10 terminated or atomically flat, silicon surface 12; and  
stabilizing the substrate at a first temperature. The method  
further includes exposing the silicon surface to an atmosphere 14  
including ozone, while maintaining the substrate 10 at the first  
temperature. In this method, the exposing step creates a  
15 uniformly thick, oxide film 16. This method is suitable for room  
temperature processing.